

Date: Thursday, 9/21/2006 3:23:58 PM  
 User: Kim Johnston

## Process Sheet

<b>Customer</b> :	CU-DAR001 Dart Helicopters Services	<b>Drawing Name</b> :	SINGLE MIRROR ASSEMBLY
<b>Job Number</b> :	28690		
<b>Estimate Number</b> :	12277		
<b>P.O. Number</b> :	N/A	<b>Part Number</b> :	D206558041
<b>This Issue</b> :	9/21/2006	<b>S.O. No.</b> :	N/A
<b>Prsht Rev.</b> :	NC	<b>Drawing Number</b> :	D206-558 / D2065
<b>First Issue</b> :	N/A	<b>Project Number</b> :	N/A
<b>Previous Run</b> :	N/A	<b>Drawing Revision</b> :	C / B1
	<b>Type</b> :	<b>Material</b> :	N/A
	MACHINED PARTS	<b>Due Date</b> :	10/4/2006
<b>Written By</b> :		<b>Qty:</b>	10
<b>Checked &amp; Approved By</b> :		<b>Um:</b>	Each
<b>Comment</b> :	Est. F 02.09.19 Re-format; Incorporated D2065 KJ		

## Additional Product

Job Number:



<b>Seq. #:</b>	<b>Machine Or Operation:</b>	<b>Description :</b>
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1.0	DC	DOCUMENT CONTROL
-----	----	------------------



Comment: DOCUMENT CONTROL

Photocopy bluefile and type labels as per PPP D206-558-041 CHG005

KT 06.09.22

(10)

2.0	D2011101	Mirror 6"
-----	----------	-----------



Comment: Qty.: 1.0000 Each(s)/Unit Total : 6.0000 Each(s)

Mirror 6"

Pick:

Qty Part Number Description Batch

1 D2011-101 Mirror B27163

FF 06.09.28 10

3.0	D2052	Bracket
-----	-------	---------



Comment: Qty.: 2.0000 Each(s)/Unit Total : 12.0000 Each(s)

Bracket

Pick:

Qty Part Number Description Batch

2 D2052 Bracket B17500

FF 06.09.28 10

4.0	D2054	Bushing - Delrin
-----	-------	------------------



Comment: Qty.: 2.0000 Each(s)/Unit Total : 12.0000 Each(s)

Bushing - Delrin

Pick:

Qty Part Number Description Batch

2 D2054 Bushing B20837

FF 06.09.28 10

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

**NOTE:** Date & initial all entries

Date: Thursday, 9/21/2006 3:23:59 PM  
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## Process Sheet

Customer: CU-DAR001 Dart Helicopters Services

Drawing Name: SINGLE MIRROR ASSEMBLY

Job Number: 28690

Part Number: D206558041

Job Number:



Seq. #:

Machine Or Operation:

Description :

5.0

D2055

Clamp



Comment: Qty.: 1.0000 Each(s)/Unit Total : 6.0000 Each(s)

Clamp

Pick:

Qty Part Number Description Batch

1 D2055 Clamp

B 16712

FF 06-09-28 10

6.0

D2056

Bell Crank Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total : 6.0000 Each(s)

Bell Crank Assembly

Pick:

Qty Part Number Description Batch

1 D2056 Bellcrank

B 26524

FF 06-09-28 10

7.0

D2057

Plug



Comment: Qty.: 1.0000 Each(s)/Unit Total : 6.0000 Each(s)

Plug

Pick:

Qty Part Number Description Batch

1 D2057 Plug

B 21675

FF 06-09-28 10

8.0

AN960JD10

Washer



Comment: Qty.: 4.0000 Each(s)/Unit Total : 24.0000 Each(s)

Washer

Pick:

Qty Part Number Description Batch

4 AN960JD10 Washer

M 100743

FF 06-09-28 10

9.0

MS21042L3

Nut



Comment: Qty.: 2.0000 Each(s)/Unit Total : 18.0000 Each(s)

Nut

Pick:

Qty Part Number Description Batch

2 MS21042L3 Nut

M 101390

FF 06-09-28 10

OF MS21042-3

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

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Drawing Name: SINGLE MIRROR ASSEMBLY

Job Number: 28690

Part Number: D206558041

Job Number:



Seq. #:

Machine Or Operation:

Description :

10.0

MS27039118

Screw



Comment: Qty.: 2.0000 Each(s)/Unit Total : 12.0000 Each(s)

Screw

Pick:

Qty Part Number

Description

Batch

2 MS27039-1-18 Screw

M12B07

FF

06-09-28

10

11.0

M304TR0500W035

304 RD Tube .500 x .035W



Comment: Qty.: 1.7500 f(s)/Unit Total : 10.5002 f(s)

304 RD Tube .500 x .035W

304/316 SS Seamless Tube (Ref QSI 017 4.1.1.2) as per Dwg D2065 using punch Jig DT8012

(M04TR0.500W035)

Identify as D2065.

Batch M101593

Note: 1 end only

FF

06-09-28

10

12.0

BRAKE NC

NC BRAKE



Comment: NC BRAKE

Punch 1/2" OD x .035 " Wall AISI

FF

06-09-28

10

13.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1

Cut to length as per Dwg D2065

Bend as per Dwg D2065 and template D2065T1

Flatten the end on Hydraulic press using Dt 8545

Drill 00.188" holes as per Dwg D2065 and template D2065 T1 and using Dt 8768 Drill Jig.

Deburr.

FF

06-09-28

14.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

SB

06/09/28

(10)

15.0

POWDER COATING

POWDER COATING



Comment: POWDER COATING

Powder Coat Black Sandtex (Ref: 4.3.5.7) as per QSI 005 4.3

Y

06/09/29

X10

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Drawing Name: SINGLE MIRROR ASSEMBLY

Job Number: 28690

Part Number: D206558041

Job Number:



Seq. #:

Machine Or Operation:

Description :

16.0

QC3

INSPECT POWDER COAT/CHEMICAL CONVERSION



Comment: INSPECT POWDER COAT/CHEMICAL CONVERSION

FF 06-09-29 10

17.0

SMALL FAB 1

SMALL & MEDIUM FAB RESOURCE 1



Comment: SMALL & MEDIUM FAB RESOURCE 1  
Assemble as per Dwg D206-558

FF 06.10.02 10

18.0

QC5

INSPECT WORK TO CURRENT STEP



Comment: INSPECT WORK TO CURRENT STEP

SD 06/10/02 10

19.0

D2053

Bracket



Comment: Qty.: 1.0000 Each(s)/Unit Total: 6.0000 Each(s)

Bracket

Pick: Packing Kit

Qty Part Number Description Batch

1 D2053 Bracket B16710 ✓

20.0

D2067

Connector



Comment: Qty.: 1.0000 Each(s)/Unit Total: 6.0000 Each(s)

Connector

Pick: Packing Kit

Qty Part Number Description Batch

1 D2067 Connector B9867 1X B21181 3X ✓ B21322 6X ✓

21.0

D2071

Cable Assembly



Comment: Qty.: 1.0000 Each(s)/Unit Total: 6.0000 Each(s)

Cable Assembly

Pick: Packing Kit

Qty Part Number Description Batch

1 D2071 Cable B20863 9mlp ✓ B21322 1mlp ✓

22.0

AN34A

Bolt



Comment: Qty.: 4.0000 Each(s)/Unit Total: 24.0000 Each(s)

Bolt

Pick: Packing Kit

Qty Part Number Description Batch

AA18369

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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Drawing Name: SINGLE MIRROR ASSEMBLY

Job Number: 28690

Part Number: D206558041

Job Number:



Seq. #:

Machine Or Operation:

Description :

4 AN3-4A Bolt

*m18369 ✓*

23.0

AN5261032R9

Screw



Comment: Qty.: 4.0000 Each(s)/Unit Total: *40* 24.0000 Each(s)

Screw

Pick: Packing Kit

Qty Part Number

Description Batch

4 AN526-1032R9 Screw

*M11325 ✓*

or AN526C1032R9

24.0

AN960JD10L

Washer



Comment: Qty.: 4.0000 Each(s)/Unit Total: *40* 24.0000 Each(s)

Washer

Pick: Packing Kit

Qty Part Number

Description Batch

4 AN960JD10L Washer

*M12291 ✓*

25.0

MS21919DG5

Clamp



Comment: Qty.: 2.0000 Each(s)/Unit Total: *20* 12.0000 Each(s)

Clamp

Pick: Packing Kit

Qty Part Number

Description Batch

2 MS21919DG5 Clamp

*M16526 ✓*

or MS21919WDG5

26.0

MS354899

Grommet



Comment: Qty.: 1.0000 Each(s)/Unit Total: *10* 6.0000 Each(s)

Grommet

Pick: Packing Kit

Qty Part Number

Description Batch

1 MS35489-9 Grommet

*AA966 M9619 ✓*

*Perm. chs*

*EC Qty Part Number Desc batch*  
*7 MS21042L3 Nut M101390 ✓*

27.0

QC4

INSPECT 100% KITS FOR COMPLETENESS



Comment: INSPECT 100% KITS FOR COMPLETENESS

*1506/10/03(10) C 206/10/03(10)*

**Dart Aerospace Ltd**

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes ☐ No ☒ DQA: DD Date: 04/10/03  
 QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
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## Process Sheet

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Drawing Name: SINGLE MIRROR ASSEMBLY

Job Number: 28690

Part Number: D206558041

Job Number:



Seq. #:

Machine Or Operation:

Description :

28.0

PACKAGING 1

PACKAGING RESOURCE #1



*Identify 2 Pack for shipping.  
per PPP D206558041*



Comment: PACKAGING RESOURCE #1

Identify and Stock

Location: \_\_\_\_\_

*RevF LB 06/10/03 (10)*

29.0

QC21

FINAL INSPECTION/W/O RELEASE



Comment: FINAL INSPECTION/W/O RELEASE

*06/10/03 (2)*

Job Completion



*LB 06-10-03*

W/O:		WORK ORDER CHANGES					
DATE	STEP	PROCEDURE CHANGE	By	Date	Qty	Approval Chief Eng / Prod Mgr	Approval QC Inspector

Part No: \_\_\_\_\_ PAR #: \_\_\_\_\_ Fault Category: \_\_\_\_\_ NCR: Yes No DQA: \_\_\_\_\_ Date: \_\_\_\_\_

QA: N/C Closed: \_\_\_\_\_ Date: \_\_\_\_\_

NCR:		WORK ORDER NON-CONFORMANCE (NCR)						
DATE	STEP	Description of NC Section A	Corrective Action Section B			Verification Section C	Approval Chief Eng	Approval QC Inspector
			Initial Chief Eng	Action Description Chief Eng	Sign & Date			

NOTE: Date & initial all entries

### 3.0 CARGO MIRROR INSTALLATION

Install the Cargo Mirror as follows:

1. Install D206-558-041/-043 cargo mirror assembly using AN3-4A bolts and AN960JD10L washers. Pickup existing anchor nuts in 4 places.
2. Install D2067 connector onto D2056 bellcrank assembly to locate hole for MS35489-9 grommet. With the mirror in the deployed position, mark and drill  $\varnothing 0.125$ " (3.2mm) hole in landing light window panel where the grommet should be located. Open pilot hole to  $\varnothing 0.563$ " (14.3mm). Install grommet.
3. Install D2053 bracket using AN526-1032R9 screws. Pickup on existing anchor nuts.
4. Position D2071 cable as shown. Install MS21919DG5 clamps using AN526-1032R9 screws where required. Pickup existing rivnuts or anchor nuts if available.
5. Install D2071 control cable using D2067 connector. Connector should rotate freely in bellcrank when MS21042-3 nut is torqued and cable clamped

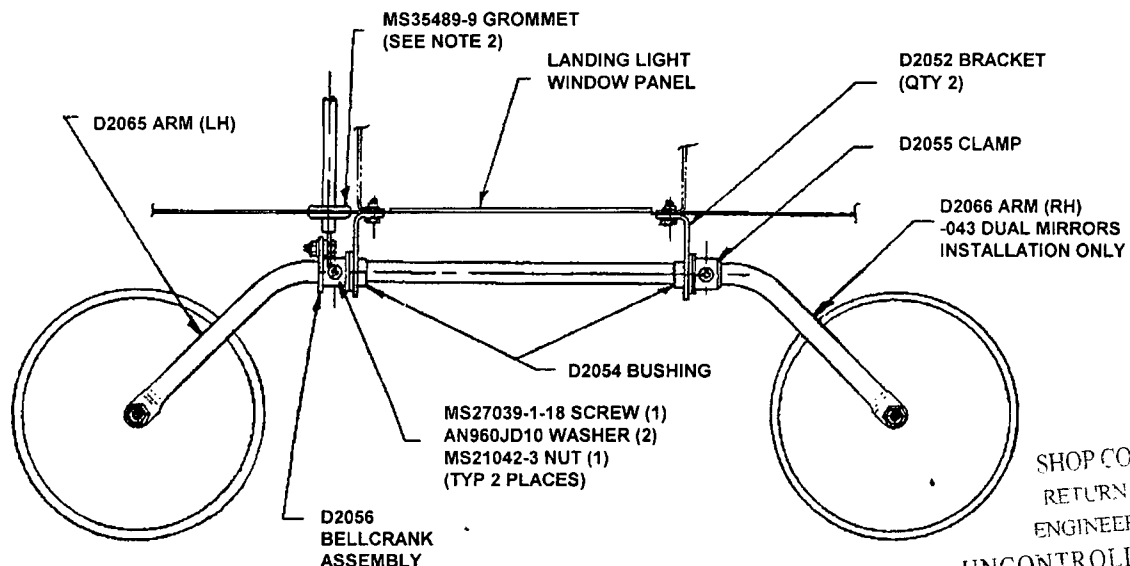


Figure 2: - View A: Looking Aft.  
(D206-558-043 Mirror Shown)

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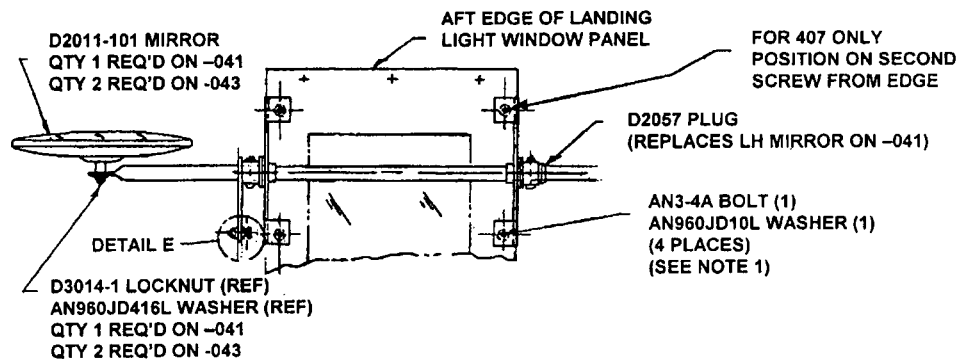


Figure 3: - View C: Looking Down on Mirror Installation  
(D206-558-041 Mirror Shown)

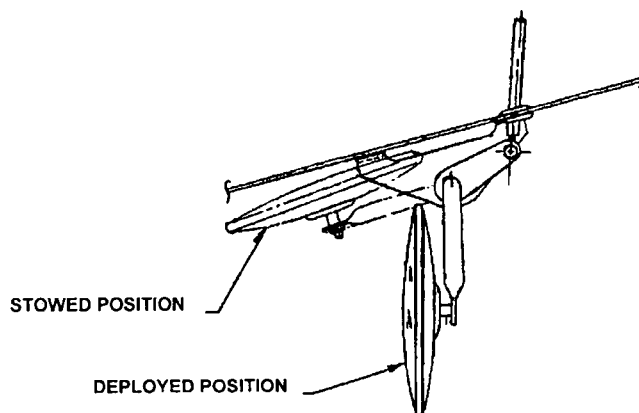


Figure 4: - Detail D: Looking from Side on Mirror Installation  
(D206-558-041/-043 Mirror Shown)

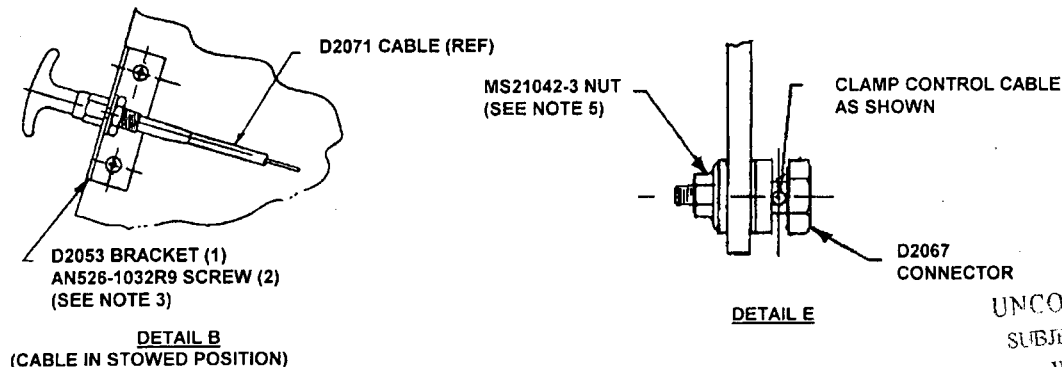


Figure 5: - Details B and E on Mirror Installation  
(D206-558-041/-043 Mirror Shown)

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## 4.0 WEIGHT AND BALANCE

Installation	Weight	LATERAL		LONGITUDINAL	
		Arm	Moment	Arm	Moment
D206-558-041 Bell 206A/B/L/L1/L3/L4 Bell 407	2.4 lb 1.09 Kg	+5.0 in +0.13 m	+12.0 in-lb +0.14 m-Kg	+14.8 in +0.38 m	+35.5 in-lb +0.41 m-Kg
D206-558-043 Bell 206A/B/L/L1/L3/L4 Bell 407	3.0 lb 1.36 Kg	0.0 in 0.0 m	0.0 in-lb 0.0 m-Kg	+14.8 in +0.38 m	+44.4 in-lb +0.52 m-Kg

## 5.0 WEIGHT AND BALANCE

Qty -041	Qty -043	Part Number	Description
X		D206-558-041	SINGLE CARGO MIRROR ASSEMBLY
	X	D206-558-043	DUAL CARGO MIRROR ASSEMBLY
1	2	D3014-1	* LOCKNUT
1	1	D2071	CABLE ASSEMBLY
2	2	D2054	BUSHING
1	1	D2067	CONNECTOR
	1	D2066	ARM
1		D2065	ARM
1		D2057	PLUG
1	1	D2056	BELLCRANK ASSEMBLY
1	1	D2055	CLAMP
1	1	D2053	BRACKET
2	2	D2052	BRACKET
1	2	D2011-101	MIRROR ASSEMBLY
4	4	AN3-4A	BOLT
4	4	AN526-1032R9	SCREW
1	2	AN960JD416L	* WASHER
4	4	AN960JD10	WASHER
6	6	AN960JD10L	WASHER
3	3	MS21042-3	NUT (or MS21042L3)
2	2	MS21919DG5	CLAMP
2	2	MS27039-1-18	SCREW
1	1	MS35489-9	GROMMET

\* INCLUDED AS PART OF D2011-101 MIRROR ASSEMBLY

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WORK ORDER

NO. 28690

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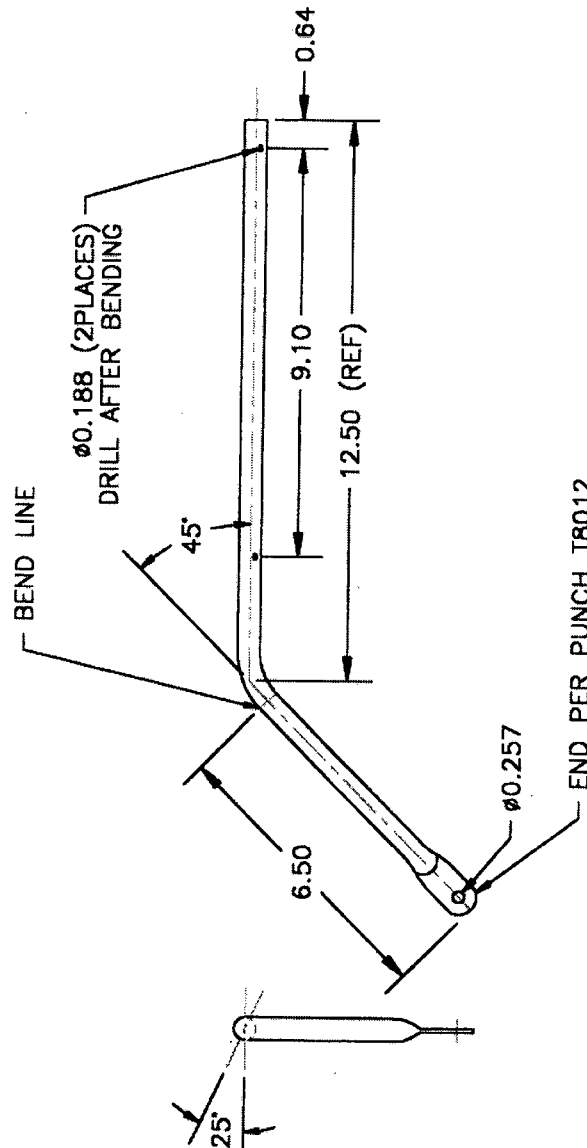
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Date: 01.10.03



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CHECKED	APPROVED	DRAWING NO.	REV. B
<i>BW</i>	<i>BW</i>	D2065	SHEET 1 OF 1
DATE	TITLE		SCALE
92.03.12	ARM		1:4
B	96.02.06	RE-DESIGN	
BI	<i>CP</i> 92.03.25	ADD FINISH	

RELEASED  
96/11/14 BW



D2065 CUT LENGTH 19.5

MATERIAL: 304/316 SS 1/2 OD X 0.035 WALL  
FINISH: POWDER COAT BLACK SANDTEX (4.3.5.7) PER  
DART QSI QSS 4.3 *BT*

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